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MIGRATIONS OF ASIATIC RACES AND CULTURES TO NORTH AMERICA¹

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EVER since we have learned to look at the development of man as a historical process the interest of the student has been directed toward the discovery of our ancestry, of the place of the first appearance of man on our globe and of the history of his migration over the continents. A special aspect of this problem is the history of the appearance of man in America.

All the evidence that we possess up to this time leads us to believe that man did not develop from lower, ancestral forms on the western hemisphere. All his closest relations among the higher mammals live and lived in early geological periods in the Old World; in Europe, Africa and Asia. No forms from which man can be descended have ever been found in America. A single tooth, found in Nebraska, which was once believed to have possibly belonged to a higher ape, has proved to be that of a peccari.

It seems, therefore, reasonable to assume that man developed in the Old World and came to America later. The time of his immigration can not yet be fixed with any degree of certainty, but some limitations may be established. Since the end of the Tertiary the Old World and the New have been separated by the Atlantic Ocean so that the immigration of living beings in this direction has been impossible ever since the land connection in the far north disappeared. If Tertiary man existed in Europe, as is claimed by some investigators, he might have come to America over the

old land bridge. We have, however, no evidence whatever of the presence of man in the New World at this period.

Although negative evidence, in this case the lack of finds, is never conclusive, there are other reasons that induce us to conclude that man did not reach America by this route and at this early period. The earliest remains of man found in Europe differ from modern races. They are rather predecessors of modern man, although not necessarily his immediate ancestors. The American race, on the other hand, is morphologically closely allied to the Mongolid race of Asia. Notwithstanding the great differentiation of American Indian types in North America and South America, they bear throughout a decided resemblance to the East Asiatic type and differ from all other races. Even the earliest remains of man found on the western hemisphere share these characteristics. We must, therefore, assume that these two groups had a common origin. The differentiation of the Mongolid race must have occurred before man came to America.

Just when this differentiation developed is still an open question. If it is permissible to judge by analogy, we might place these events in the later Paleolithic period, contemporaneous with the appearance of the Cro-Magnon type. It is, however, quite possible that the origin of this race may date farther back and that it may have appeared in Europe towards the later part of the long Paleolithic period. The determination of the period in which the differentiation of the negroid and Mongolid races occurred will give us the earliest date of the arrival of man in America.

¹ Address before a joint meeting of the American Association for the Advancement of Science and the American Anthropological Association, New York, December 29, 1928.

Positive evidence is still lacking of man's arrival before the end of the great glaciation that separated America from the Old World. Even the most carefully investigated finds that have been made admit of the explanation that they belong to the early post-pleistocene, to a period when the great glaciers had retreated northward. They show, however, that the technical skill of man in the early post-pleistocene was far advanced. The forms are not distinguishable in technical character from those of the modern Indian, before the advent of the Europeans. There is an apparent contradiction between the paleontological evidence and the types of implements found. The animals with which the earliest human remains are associated, are in part extinct and fossilized. Their geological position suggests that these forms may have become extinct much later than is usually assumed.

The final determination of the problem of the first arrival of man on our continent will be solved by geologists. It is a geological problem requiring the determination of the period in which the strata were deposited that contain the remains of animals, of man and of his handiwork. The paleontologist and anthropologist must accept the findings of the geologist and they must shape their conclusions according to the chronology established by the geologist. Unfortunately, this fact is not yet sufficiently recognized and too great weight is given to the types of animal, man and artifacts found. Efforts must be made to ascertain with the greatest accuracy, the geological age. Apparent contradictions between the geological and paleontological or anthropological evidence may lead to a reexamination of the geological conditions, but the decision must be made by the geologist. The closest cooperation between geologists, paleontologists and anthropologists must, therefore, be demanded.

A consideration of the actual conditions on the American continent makes us inclined to consider the post-pleistocene period as rather short for the development of the differentiation in types and languages that has occurred.

If it is true that man came here by way of Siberia and the extreme north-western part of our continent, at a time when a wide land-bridge existed in place of Bering Sea, and gradually spread over North and South America, he was compelled to become acclimated to the tropics, and in his further migrations southward, to the inhospitable climate of the extreme southern part of South America. The American Indians of various areas differ considerably among themselves and there must have been sufficient time for the development of distinct types. The languages differ enormously in general structure and we must allow time for their development. The fundamental differences in bodily form, language and culture must always be borne in mind and should not be slurred over.

It is not likely that the migration of man into America occurred just once. It may have been a continuous process extending over a long period and bringing different types and different languages into our continent. If we were to assume that the various types and languages represent, unchanged, different waves of migration, we should merely add a new hypothesis to the others, for there is no evidence that the American types existed at an earlier time in Asia.

On account of these considerations it seemed appropriate to consider the whole problem from another angle. Instead of asking what has happened in earliest times, we might rather investigate the relations that exist at present between the two continents and inquire what historical inferences may be drawn from them. It was this problem which I presented in 1896 to Morris K. Jesup, president of the American Museum of Natural History, and which led to the

organization of the Jesup North Pacific Expedition, which was liberally financed by Mr. Jesup and the direction of which was entrusted to me.

The problem before us was primarily an investigation of the coast region of the North Pacific Ocean for the purpose of determining the anthropological interrelation between America and Asia. This necessitated a careful investigation of the anthropological types, languages and cultures of the whole area, together with an attempt to ascertain their development during early times by means of an archeological inquiry.

It was known from previous investigations that the east Asiatic type and the Northwest American type show close resemblance, so much so that in some individuals it might be doubtful to which continental area they belonged; but the local types of the whole district were not well known. It was one of our tasks to obtain a better insight into the relations of native types. In the extreme north we find the Eskimo of Alaska. The eastern Eskimo present a very characteristic and easily recognized bodily form which sets them off sharply from their southern Indian neighbors. In Alaska these features are not so pronounced and relationships appear to both the Indian and East Asiatic forms. Still, the people are most closely related to the Eskimo type. On the other hand the types of the coast of southern Alaska and of the adjoining interior do not seem to me to an equal degree distinct from those of southern Siberia. The similarity of the crania of the two groups has been shown by Dr. Dina Jochelson-Brodsky. They differ, however, in facial form. Later on the observations of Russian investigators were corroborated by Dr. Hrdlička. His claim that the difference in facial form is secondary, due to environmental conditions, can not be claimed to be more than a hypothesis. A comparison of American and Siberian forms is made difficult by the extended migrations that

have occurred in Siberia, where Turkish and Tungus tribes have, to a great extent, superseded the ancient native people.

The two outstanding problems are, therefore, the examination of those areas in which those types of the two continents occur that are most alike, and the other one how to interpret the distribution of dissimilar types. So far as we can see at present, the Eskimo and perhaps also the Arctic Siberians separate two types that show a certain degree of similarity. This may be due either to a parallel development or to an older historic relation. Evidently the solution of this question can be given only by a widely extended investigation of the prehistoric remains of this area, an expensive and laborious undertaking that lay outside of the possibilities of the Jesup Expedition. Unfortunately up to this time material from Alaska has been collected more with a view of accumulating masses of objects rather than of obtaining a carefully observed stratigraphically determined series. In recent investigations Jenness and Collins seem to have devoted greater care to strata and sequence. The problem to be decided is, whether the Eskimo type is the oldest one in this area, or whether it is intrusive and overlies more ancient types similar to those of the Northwest coast. By this investigation we may also determine whether the Eskimo intrusion came from the West or from the East. This must remain an open question until careful and extensive observations on the ancient remains of the whole area, extending from the Amur River northward and along both coasts of Bering Sea, will be undertaken. This is at present one of the most urgent needs for the solution of the problem of the interrelation between the early populations of America and Asia.

The relation between Asia and America may also be investigated by an examination of the modern cultural forms.

The work of the Jesup expedition was devoted particularly to this problem.

First of all it seemed necessary to inquire into the possibility of linguistic relationships. Siberia and the Pacific Coast of America belong to those parts of the world in which we still find a great number of apparently unrelated languages, each spoken in a limited area. In Siberia the older conditions have been disturbed by the influx of Tungus and Turkish tribes. According to recent observations by Professor Bogoras, one of the valued members of the Jesup Expedition, many of the small tribes that speak now Turkish dialects must be considered assimilated tribes. What language they may have spoken in early times can not now be ascertained. The isolated tribes of Siberia are generally designated by the term *Palaeasiatics*, and Professor Bogoras and Mr. Jochelson find their similarity to the American tribes so striking that they speak of them as *Americanoid*.

On account of the fundamental structural differences of American languages among themselves and similar differences of the Siberian languages among themselves, it is impossible to trace the origin of American languages to Siberia or those of Siberia to America. The eastern Siberian languages have certain features in common with other Asiatic languages, for instance, the importance in their structure of vocalic harmony, while in regard to other traits such as the incorporation of the nominal object in the verbal complex they resemble certain American types.

A comparison between Chukchee, a language of the extreme eastern part of Siberia, and of the Eskimo reveals a peculiar relation. While the fundamental traits of the structure of these languages are quite diverse, a number of peculiar features are common to both. Some of these are purely formative elements, like the suffix *-t* which forms the plural. Others are rather psycho-

logical categories that are expressed in both languages, although they are absent among the neighboring tribes. To this group belong the similar development of verbal modes, and the peculiar difference in the treatment of the subject of transitive and intransitive verbs, a feature which occurs in many American languages. I believe we may infer from this ancient cultural contact so close that it has resulted in the contamination of linguistic structure.

More conclusive results have been obtained through a study of other cultural traits of the tribes of this area. A careful analysis has led us to recognize the fundamental unity of the culture of the circumpolar area of both the New and the Old Worlds.

A single problem of unusual interest may be mentioned first. The type of man found in the deposits of the late Magdalenian resembles the modern Eskimo and the implements of that period are not unlike those that characterize the modern Eskimo culture. On this basis the conjecture has been made by Boyd-Dawkins that with the gradual retirement of the Tundra northeastward, Magdalenian man, the so-called Cro-Magnon race, followed the reindeer northeastward and thus travelled through Siberia and finally reached the American continent, so that our Eskimo would have to be considered descendants of the Cro-Magnon race. While we may acknowledge the attractiveness of such a hypothesis, it is hardly acceptable at this moment; not so much because there are important differences between the two human types and the two cultures, for these might have developed in a long span of time, as for the reason that there is no archeological evidence connecting these remote areas. It would be necessary to show that the Cro-Magnon type and his culture left remains in the intervening parts of Asia. The few prehistoric sites in Siberia which have come to our knowledge, particularly through

the efforts of Petri, do not give us any clue that would corroborate the hypothesis. The similarity between Magdalenian and Eskimo is, however, great enough to deserve further study, which must be carried on in Siberia and eastern Europe. The most recent investigation of Eskimo culture over the whole district from Alaska to Davis Strait has proved that the modern Eskimo culture has almost everywhere degenerated from an older type which was technically, and in art forms, far superior to that of the present time. The similarity between Magdalenian and Eskimo must, therefore, be based more rigidly on a comparative study of ancient Eskimo culture rather than on that of modern times.

The characteristics of the circumpolar culture are only in part explained by the similarity of geographical environment. The climate does not permit agriculture and all the people rely essentially upon animal food, fish, sea mammals and land animals. The domestication of the dog is known not only to the circumpolar region but is well-nigh universal. It is, however, characteristic of this region alone that the dog is used as a draft animal. It is not unlikely that the dog cart which has been used up to the present in northern Europe is a survival of this use of the dog. In Asia and Arctic America the dog is used as a draft animal in connection with a sledge. In America its use has spread southward from the Arctic region, but the Indian tribes of the Plains use it in a peculiar manner. Instead of the sledge or toboggan, they use a frame resting on two poles which are tied to each side of the dog and which are dragged over the ground. This contrivance, the so-called travois, was used both in summer and winter.

Another characteristic trait of the circumpolar region is the use of birchbark for making vessels and canoes and for building houses. The Indian birchbark wigwam is well known. The con-

struction of the Siberian tent is, in principle, the same. A frame-work of poles is erected and covered over with sheets of birchbark. The bark canoes are also of similar structure.

The possibility of navigation was presumably discovered by the observation of floating logs, floating grass, and by the buoyancy of vessels. We do not know the sequence of the inventions which led to the art of navigation, but it seems plausible that rafts were among the forms first used. In neolithic times in Europe, dugouts were made. Sometimes these were strengthened by ribs left standing when the trunk was hollowed out. It would seem that this invention was easier than that of the canoe consisting of a framework of ribs covered with birchbark or hide, a much more complex structure. In northern Denmark golden votive offerings were found that seem to represent a framework of ribs covered with skins. Caesar described boats of the same kind, as used by the natives of England. Even at the present time the coracle is used in Wales. Boats of this type of structure, covered in the southern regions with bark, in those parts of the country where wood is not available with skins, are characteristic of the whole circumpolar area. In some regions striking similarities are found, thus the general structure of the birchbark canoe of the Amur River and that of the Kutenai of British Columbia are very much alike.

It might be said that the use of skins and bark for covering framework is dictated by the availability of these materials, but this point of view is hardly tenable when we consider also the similarity of the birchbark vessels which are used on both continents. Baskets and vessels of various kinds are formed by cutting and folding birchbark in appropriate ways and many of the ideas of treatment are practically identical. The strengthening of the rim, and the decoration of the sides are characteristic for

Siberia and for America, but they do not seem to occur in other parts of the world.

Attention may also be called to the similarity in the construction of the houses. Particularly in northeastern Siberia and among the Eskimos we find a subterranean house. A shallow pit is dug and a roof erected over it with a smoke hole in the center, which at the same time serves as an entrance to the house, a ladder being placed on the floor and leading up to the smoke hole. In some cases the entrance is through a tunnel at the side. This very characteristic structure has been observed, not only in the Arctic area where it might be explained by the necessity of the climate, but it has also been found much farther to the south. All through the northern part of the great plateaus of the American west we find subterranean houses of this structure. They occur in California and may even be recognized in the underground ceremonial houses of the Pueblos, and in their ancient dwelling houses with entrance through the roof. Farther south in Asia and also on the Pacific Coast of British Columbia, this type of house is not found, but it is remarkable that in mythological tales and in certain sacred ceremonies, the entrance to the wooden houses of these areas is not through a door. The supernatural beings or novices disappear and reappear through the smoke hole. This leads us to think that perhaps in earlier times similar dwellings, with entrance through the roof, may have existed here.

Common to Siberia and America is also the characteristic flat drum, consisting of a hoop covered by a single head, sometimes with a handle consisting of crossed thongs or wire or similar material. In practically all other regions where drums with a single head occur, the shell is high, as for instance in the large drums of Africa. The only other form similar to the American and Siberian drum is the tambourine, which seems to be confined to the Mediterranean and to southern Asia. The tambourine is much

smaller and is characterized by the additional jingles.

I do not feel convinced that the use of tailored fur clothing and the methods of fishing can be added as a proof of ancient, historical relationship, because they are so much dependent upon climatic and geographic conditions.

Another feature common to the northwestern part of America and to Asia is the use of slat armor, consisting of cuirasses and other protective devices made of rods or slats, of wood, bone or ivory, securely lashed together. If this type of armor should have developed from Chinese and Japanese patterns it would be proof of an early, long-continued cultural influence that extended northward and southeastward. Of similar character is the use of the sinew-backed bow which is widely used in the Old World and occurs in an extensive area of Northwest America.

Similarities in religious ceremonials, beliefs and traditions prove an intimate relation between Asia and America. Quite recently Dr. Hallowell has published a detailed study of the bear ceremonial in the Old and New Worlds and proved its wide distribution over the whole extent of the circumpolar area and the adjoining districts farther to the south. It is hardly admissible to assume that the cult of the bear has developed independently all over this country on account of the fear inspired by this animal, for form and content are too much alike. At the same time these particular ceremonials are not found in regard to other dangerous animals.

Attention might also be called to the peculiar use of wood-shavings, grasses, and shredded bark as religious symbols which characterize the ceremonials of the Ainu, Koryak, Chukchee, and of the coast tribes of British Columbia and southern Alaska.

Strong proof of cultural relations between Asia and America is found in the folk tradition of the various tribes. In this field the isolation of the Eskimo is

particularly striking. In contrast to most other tribes the Eskimo tradition deals much more with human society than with animals, and their more important animal tales can be proved to be of Indian origin. But at the same time the Eskimo are exceedingly tenacious in form and content of their tradition. The same formulas occur in tales from East Greenland and in those from both sides of Bering Strait. The striking differences between Eskimo lore and that of their Indian and Asiatic neighbors, is one of the arguments that speak for a late intrusion of the Eskimo into Alaska. Mr. Jochelson and Professor Bogoras have made detailed comparisons of American Indian and Siberian folklore and they have proved that many elements are common to both. The number of correspondences is so large that independent origin is excluded. If we should judge by the elaboration of the various themes, we might conclude that they have their home in America and were carried to Asia, but such an argument is of doubtful validity, because tales may have degenerated in one area while there may have been a prolific development in another.

A number of themes prove clearly the importation of Old World lore into America. One of the striking examples is the famous story of the magic flight, which is spread in the Old World from Morocco to Bering Strait, and it is known in closely allied form in America all along the Arctic coasts, on the north Pacific Coast, and inland as far as the Mississippi Valley. This tale has been embodied in the most sacred traditions of British Columbia and for this reason it may be assumed that it has been known there for a long time.

Mr. Jochelson has made a statistical study of the episodes of Koryak folklore in comparison with those of the Old World and of America, and he has found that among 122 episodes, 84 per cent. are common to Asia and America excluding the Eskimo; 24 per cent. to

Asia and the Eskimo; and that only 20 per cent. are repeated in other parts of the Old World.

The intimate relationship of North Asiatic and Northwestern American culture has been fully established by these researches. A study of American material has also shown that the cultural traits that may be traced to the Old World, extend in America south and eastward to the western plains and the Mississippi Valley, weakening the farther away we move from the Arctic and from Alaska.

Cultural relations of the kind here discussed do not develop suddenly, but are the result of long-continued contact.

In order to understand the relations between America and Asia clearly it is also necessary to investigate the fundamental differences between Siberian and American culture, differences that might indicate a lack of mutual influences.

The fundamental traits of American culture are so distinct from those of the Old World that they corroborate our view of a very early immigration of man into our continent. American agriculture is based on the cultivation of American plants; Indian corn, squashes and beans are native American plants and there is no trace of the use of any of the Old World plants. The Americans had no domesticated animals excepting the dog which had an almost universal distribution, the llama in the Andean highlands and the turkey.

There are also striking differences in the general character of political organization and religious belief. Weakness of administrative function, almost complete absence of judicial procedure characterize American political organization. Absence of a belief in obsession and a different attitude towards shamanism may be observed. Among the American Indians shamanistic power is generally sought, rather than involuntarily imposed. Among the tribes of Siberia it is an unwelcome gift of supernatural power that is resisted.

One of the most striking features is the absence of domesticated reindeer in America while they are used by all the Siberian tribes. For many centuries the Alaskan Eskimo must have been familiar with the domesticated reindeer, still they have never been inclined to take up its domestication. It may well be that the extensive use of the dog was a hindrance, for it requires special training to teach the dogs not to attack the reindeer. The failure to adopt reindeer breeding may also be due to the wealth of sea-life which, under normal conditions, gave to the Eskimo ample supplies with less arduous work than that required for reindeer breeding. The general conditions of reindeer breeding indicate that the art of domestication is least developed among the Chukchee and it seems plausible that the art sprang up in western Siberia and gradually reached the most eastern part of Asia. There is every probability that the tribes of Siberia were by origin hunters and fishermen and that particularly the Chukchee participated in this mode of life. As a matter of fact a large portion of the Chukchee have no reindeer even at the present time, but live as maritime hunters in permanent villages. It is also well worth remarking that the clumsy tent of the nomadic Chukchee is, in its general plan, analogous to the underground house of the maritime Chukchee, so that survivals of older sea hunting life may be recognized even now among this tribe.

It is necessary to look at the whole problem from another angle. The study of American inventions, customs and beliefs shows that a gap exists between the cultures of the central parts of both Americas and the extreme northwest and the extreme south of South America. The advanced civilizations of Central America and of the Andean Plateaus have influenced the greater part of our continent directly and indirectly, and the inventions, customs and beliefs of the more primitive tribes have been

overlaid by cultural traits which have spread northward and southward from Central America. The older forms of American culture survive in the marginal areas on the northwest coast and independent development has occurred into which all the tribes that migrated from the interior to the coast have been drawn. The greater part of the continent is, therefore, influenced by a high culture which has developed independently of the Old World and it is, therefore, but natural that closer relations between the two continents will be found in the northwestern part, which is not only nearest to Asia but where also the older traits have not been obscured.

A last problem remains to be solved. If we acknowledge that cultural relations exist between Asia and America, the question should be answered whether the origin of these customs must necessarily be looked for in the Old World. I doubt whether it will be possible to give a categorical answer to this problem, but I incline to the opinion that the general history may have been the following. At an early time the Mongolid races migrated in a number of waves into the American continent and were gradually driven southward by the inclemency of the Arctic climate. Later on when the climate became more temperate, man settled again in the more northern districts and an eastern and western wave turned northward. The outposts of the eastern wave may have been the Eskimo, while the western wave moved across Bering Strait and back into Siberia where they later on amalgamated with Old World tribes which also migrated northward when Siberia became habitable.

We are still far from being able to give a categorical answer to these problems but we may hope that continued researches, and particularly archeological researches, in the Arctic may enable us to clear up the later phases of the migrations of the aborigines.